

LISTS OF SPECIES

Ichthyological survey and review of the checklist of fish fauna of Arunachal Pradesh, India

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Abstract

One hundred thirty eight fish species were collected during a systematic survey of 35 rivers in Arunachal Pradesh state, India, in March 2004 to March 2008. Based on this survey and on literature review we developed a checklist with 213 fish species for the state. We have added 43 species to the previous record of 170 species. This study confirmed the occurrence of five new species described by previous investigations and encompasses the discovery of two new species, although the taxonomic status of 27 species is uncertain and requires additional study.

Introduction

Fish are invariable living components of water bodies. These organisms are important food resource and good indicators of the ecological health of the waters they inhabit. However, the rich biodiversity of the freshwater fish of the Indian region has been rapidly dwindling because of increasing degradation of inland water. Out of a total of 2,500 species of fish in India, 930 are in fresh waters and belong to 326 genera, 99 families and 20 orders (Talwar and Jhingran 1991). Arunachal Pradesh (AP) state is the largest in geographical as well as in river drainage area in North-Eastern India and harbours innumerable rivers and rivulets which are home to diverse fish species, of which many are endemic to this region. AP is regarded as the type locality for more than 11 freshwater fish species in the world.

The fish resources in the lotic systems had not been completely explored because most of the rivers are located in unapproachable mountainous steep terrain with dense forest cover. The forest cover of the state, based on satellite data of February 2005, is 67.78 km² (80.93 %) and due to

low human density large areas of forest still remain intact.

In recent years the number of studies on fishery resources of the state have increased. For example, Nath and Dey (2000) published their pioneering works on systematic account of fish resources of AP revealing 131 species from AP. Moreover, two new species have been described recently: *Pseudechenies sirenica* Vishwanath and Darshan 2007 and *Psilorhynchus arunachalensis* (Nebeshwar, Bagra and Das 2007). These publications suggest that water bodies of AP are of taxonomic importance.

Besides the probable importance of this system, we have found a gap of information regarding the list of fish fauna in the drainage systems of the state. By this reason, the aim of the study was to catalogue the fish species diversity in AP state and to establish a museum of fish resources of Arunachal Pradesh - the first of this kind in the state, at the Centre of Biodiversity in Rajiv Gandhi University, Rono Hills, Itanagar.

LISTS OF SPECIES

Material and methods

Arunachal Pradesh (AP) state is situated in the North-Eastern part of India between 26° 28' to 29° 30' N and 90° 30' to 97° 30' E, with 83,743 km² total area. Almost 95 % of the streams and rivers in the state drain in to the mighty river Brahmaputra and the rest drain in to Irrawaddy river drainage of Chindwin basin. The river Brahmaputra also receives water from the state Assam and ultimately discharges the contents in to the Bay of Bengal. The river Siang is the biggest river in AP which is originated in Tibet where it is known as Tsangpo. The major rivers traversing the state are Lohit, Dibang, Siang, Siyom, Subansiri and Kameng.

We surveyed 40 randomly selected stations in 35 streams and rivers in the state during a period of four years from March 2004 to March 2008. Fishes were collected with the following methods: viz. electrofisher (Samus- 725G), cast nets, gill nets and indigenously used fishing contraptions. During the field activities, we also used formalin for preserving the specimens, GPS (Garmin eTrex Legend) for recording the geographical co-ordinates and digital camera (Sony DSC-W30) for registering the specimens. At each randomly selected sampling station the maximum possible length of the stream/ river was covered and attention was paid to sample fishes from maximum heterogeneous habitat types.

The indigenously used fishing devices, their construction and the methods of application are described below:

i) *Takom gaanam*: technique of placing a *Takom* in the river or stream. *Takom* is a conical shaped fish trap made of bamboo with a mouth diameter ranging from 0.1 to 0.3 meter. It is fixed against the water current. Once the fish entered inside, they remained entangled in the base with the pressure of water current.

ii) *Tasum kunam*: fishing method in which a conical shaped basket made of cane is used to collect fishes from streams or rivers. With this fishing gear small sized fishes, especially bottom dwellers, are easily collected.

iii) *Lipum paanam*: fishing method in which the flat stones are piled one on other in the pool or slow flowing river of approximately 1 meter depth. The stone are piled in such a way that forms a round shape of aggregated stone block called *lipum*. The diameter of *lipum* ranges from 1.2 to 2.0 meters and height ranges from 0.4 to 0.5 meter. *Lipum paanam* is practiced during winter season and is allowed to remain undisturbed for 2 to 3 months where fish used to take shelter. The aggregated fishes are then collected by unpling stones just after cordoning the *lipum* with a circular screen made of bamboo. These indigenous devices were used where common fishing gears were not appropriated.

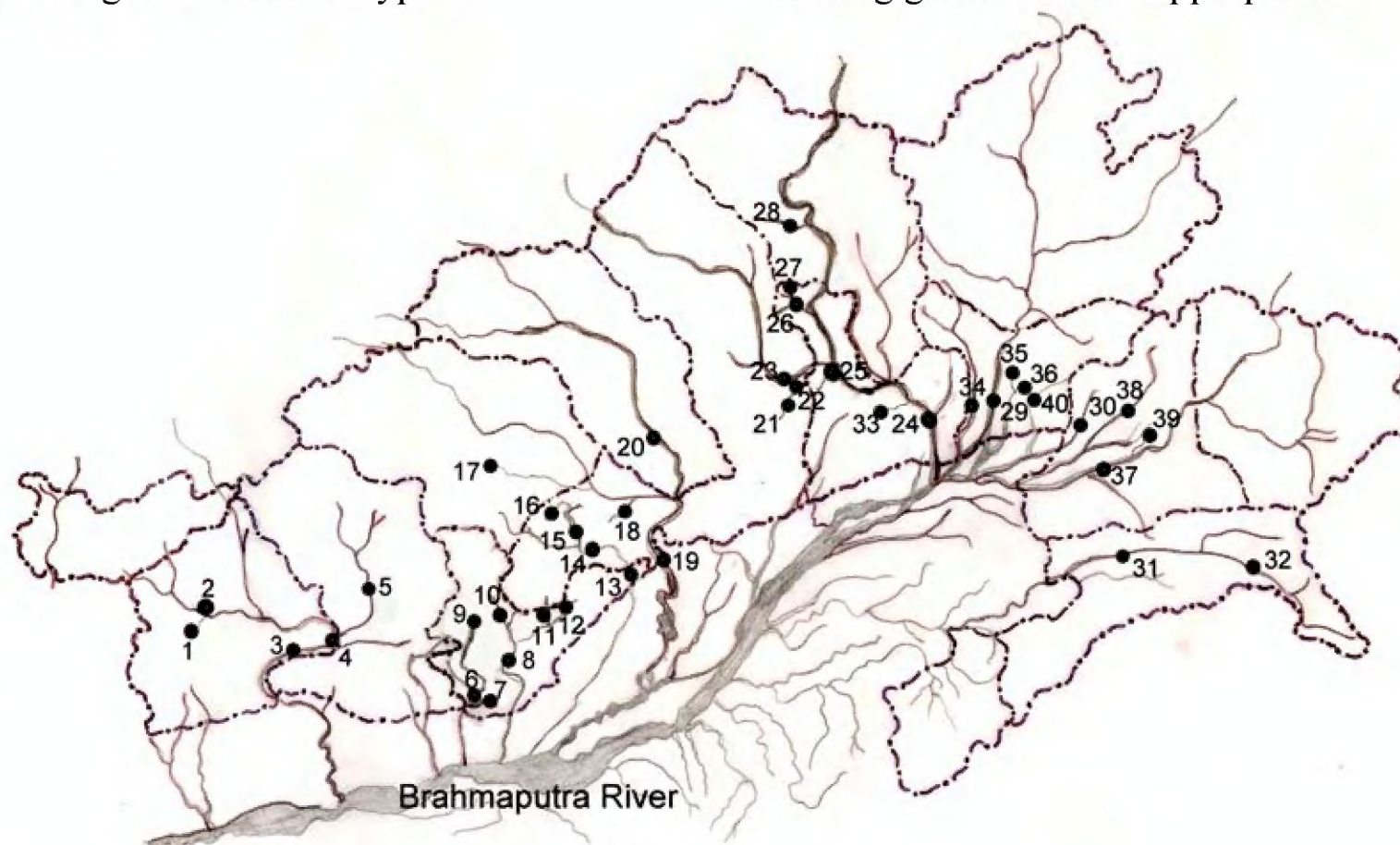


Figure 1: Map indicating the site of collection and station numbers

LISTS OF SPECIES

The collected specimens were immediately dipped in 10 % formalin after removed from water in a spacious container that allowed proper spreading of their fins. Two to three changes of specimens in fresh formalin preparation of 10 % dilution was adopted during the sampling time. When necessary, peritoneal administration of the preservative has also been done. By the end of each sampling the specimens were examined on field and classified into different families; which were carried in separate containers. Each container was labeled properly against the physical data sheet of the sampling station and brought to the laboratory for further taxonomic exercise. Morpho-taxonomic counts and identifications have been done following Kottelat (2001). Measurements were taken up to the one tenth of a millimeter using dial calipers.

Some published literatures were consulted for confirmation of the species and taxonomic review of the identification (e.g, Hora and Mukerji 1935; Hora 1937; Ghosh and Lipton 1982; Sen 1985; Sen 2000; Kottelat 1990; Talwar and Jhingran 1991; Nath and Dey 1997; 2000; Jayaram 1999; Menon 1999; Ng and Rainboth 2001; Ng 2005; 2006; Tamang et al. 2006; 2007; Vishwanath and Darshan 2007; Nebeshwar et al. 2007).

The present checklist has been prepared as per the internationally accepted valid names available in the online catalog of fishes, California Academy of Sciences. The results of this study are presented in a way to provide relevant information, which includes number of the specimen examined, range of size group as standard length (SL), the registration number in the museum, site of collection, geographical co-ordinates of the collection site and a geographical map of the state indicating the collection sites. The station of

collection, as pointed in the map, is presented in a tabular form mentioning the name of the station, the name of nearby town and the altitude of the respective sites.

Results and Discussion

A total of 138 fish species were collected and examined (Appendix 1) from 40 randomly selected stations in 35 rivers (Table 1) of Arunachal Pradesh (Figure 1) during the study period. From this total, 111 species were identified and confirmed at the species level, including 16 new occurrences for the study site. The remaining 27 species of the total collection are yet to be confirmed at species level. Comparing with previous studies, 75 such species registered for the region have not been recorded in the present collection (Appendix 2). Based on the valid name of both examined and consulted species, the current checklist of 213 fish species included in 11 orders, 31 families and 93 genera have been ascertained for the state.

New occurrences in this study include: i) two newly described species *Psilorhynchus arunachalensis* (Nebeshwar, Bagra and Das 2007) and *Garra kalpangii* sp. nov., ii) twelve already described species viz. *Oreoglanis setiger* Ng and Rainboth 2001, *Batasio fasciolatus* Ng 2006, *Psilorhynchus homaloptera* Hora and Mukerji 1935, *Nangra assamensis* Sen and Biswas 1994, *Mystus montanus* (Jerdon 1849), *Eutropiichthys vacha* (Hamilton 1822), *Gagata cenia* (Hamilton 1822), *Gogangra viridescens* (Hamilton 1822), *Badis assamensis* Ahl 1937, *Chaca chaca* (Hamilton 1822), *Macrognathus aral* (Bloch and Schneider 1801) and *Colisa sota* (Hamilton 1822) and iii) two exotic invasive species viz. *Oncorhynchus mykiss* (Walbaum 1792) and *Oreochromis mossambica* (Peters 1852).

Table 1. Sampling river, station, location and altitude.

Station No.	Name of the River /Stream	Station	Location	Altitude in meter
1	Sangti	Dirang	27°20'43" N 92°16'16" E	1500
2	Dirang	Dirang	27°20'07" N 92°15'24" E	1750
3	Kameng	Balukpung	27°01'55" N 92°36'53" E	189
4	Bichom	Rupa	27°12'32" N 92°24'10" E	1461
5	Kameng	Seppa	27°16'35" N 92°53'16" E	400

LISTS OF SPECIES

Station No.	Name of the River /Stream	Station	Location	Altitude in meter
6	Poma	Ramgath	26°57'38" N 93°24'26" E	129
7	Balijan	Balijan	26°57'57" N 93°30'18" E	132
8	Dikrong	Doimukh	27°08'19" N 93°44'51" E	120
9	Poma	Poma	27°04'40" N 93°30'44" E	280
10	Sinki	Itanagar	27°06'30" N 93°36'27" E	300
11	Labia	Dev	27°12'30" N 93°30'24" E	1083
12	Dikrong	Sagalee	27°41'38" N 93°29'37" E	932
13	Ranga	Kimin	27°21'01" N 93°57'11" E	193
14	Ranga	Yazali	27°23'04" N 93°45'28" E	611
15	Kalpangi	Yachuli	27°25'53" N 93°45'42" E	797
16	Kele	Ziro	27°30'20" N 93°50'00" E	1617
17	Kurung	Sangram	27°49'12" N 93°32'04" E	560
18	Panye	Tamen	27°45'17" N 94°00'19" E	340
19	Subansiri	Gerukamukh	27°31'54" N 94°15'36" E	111
20	Subansiri	Daporijo	27°59'04" N 94°14'05" E	244
21	Sipu	Doji	28°05'55" N 94°47'58" E	369
22	Sipu	Aalo	28°09'50" N 94°47'36" E	259
23	Siyom	Aalo	28°10'46" N 94°47'05" E	236
24	Siang	Pasighat	28°05'17" N 95°19'54" E	149
25	Sireng	Rottung	28°07'58" N 95°08'40" E	291
26	Rubung	Boleng	28°19'21" N 94°57'41" E	450
27	Mibung	Boleng	28°18'53" N 94°57'17" E	363
28	Siren	Ramsing	28°40'24" N 94°57'55" E	352
29	Dibang	Near Roing	28°05'27" N 95°39'45" E	176
30	Koliya	Koronu	27°00'49" N 95°56'25" E	237
31	Noadihing	Miao	27°29'43" N 96°13'13" E	252
32	Noadihing	Namdapha National Park	27°30'03" N 96°23'21" E	332
33	Egar	Renging	28°07'54" N 95°14'51" E	546
34	Sisri	Dambuk	28°15'49" N 95°36'25" E	441
35	Ihipani	Roing	28°10'21" N 95°49'58" E	388
36	Deopani	Roing	28°09'35" N 95°54'08" E	754
37	Lohit	Timai Gath	27°53'17" N 96°17'31" E	258
38	Dipu	Bismaknagar	28°03'48" N 95°58'39" E	346
39	Demwe	Tezu	27°53'49" N 96°21'16" E	548
40	Kundil	Roing	27°59'31" N 95°48'27" E	153

We have added 43 species to the previous record of 170 species, in a total of 213 fish species in the drainage system of the state. This study also confirmed the occurrence of five new species described by previous studies in the study site. Nevertheless, the study encompasses the discovery of two new species, though one of them is awaited for publication. Moreover, our study has been the first, to our knowledge, to cover the entire hydro-geographical locations at different altitude zones, which was hardly emphasized in any of the earlier works. Previous studies were also mostly fragmentary

(e.g. McClelland 1839, Chaudhuri 1913; Hora 1921; Jayaram 1963; Jayaram and Mazumdar 1964, Menon 1964; Dutta and Sen 1977; Choudhury and Sen 1977, Jhingran and Sehgal (1978). One of the only non-fragmentary studies on fish and fisheries in AP state has been the checklist of 131 species (see Nath and Dey 2000 for further details).

The identity of 27 type specimens in species level under different genera of our collection still remained uncertain due to morphotaxonomic variations from the described species under their

LISTS OF SPECIES

respective genera. Moreover, the lower number of collections of certain type specimens in some genera caused hindrance for further taxonomic confirmation. Also, the lack of facilities either for exchange of voucher specimens or for consultation of holotypes in the established museums of the country and abroad remained as one of the reasons behind confirmation of species level identity of some collected genera within the study period. For example, species of *Garra* were very difficult to identify. Previous studies report 9 species of *Garra* for the state. Our collection consisted of 7 species of *Garra*, from which 3 could not be confirmed at the species level due to lack of museum voucher specimens. Thus, a total of 27 species (Figure 2 to 26, Appendix 3) were identified up to genera level and at this point of time they have been considered as new record from the state. *Garra kalpangii* sp. nov. (Figure 27, Appendix 3) (awaiting publication in Zoos' Print Journal) has recently been described from the same study. As such, all the unconfirmed species may either be described as new species or may be confirmed as new report of known species from the state.

Some of the river sites of AP state have been reported as type locality of eleven fish species. From these 11 species, five were collected in our study (*Amblyceps arunachalensis* Nath and Dey 1989, *Amblyceps apangi* Nath and Dey 1989, *Pseudecheneis sirenica* Vishwanath and Darshan 2007, *Aborichthys kempfi* Chaudhuri 1913 and *Pareuchiloglanis kamengensis* (Jayaram 1966)). The remaining six species were not found in our study but have been included in this checklist (*Schistura tirapensis* Kottelat 1990, *Pterocryptis indicus* (Dutta, Barman and Jayaram 1987), *Garra kempfi* Hora 1921, *Garra rupecula* (McClelland 1839), *Nemacheilus tikaderi* (Barman 1985) and *Lepidocephalichthys arunachalensis* (Dutta and Barman 1984)). Thus a total of 75 species were included based on the earlier reports.

Our study came across three invasive species viz. *Oncorhynchus mykiss*, *Cyprinus carpio* and *Oreochromis mossambica* which had either been transplanted by state government or by the private entrepreneurs in targeted water bodies.

Oncorhynchus mykiss (Figure 28, Appendix 3) has been identified from a sample of fishes collected from Poma river at Ramgath in 'Papum Pare' district of the state. The sampling site is located at altitude of 129 m asl. Trout fishery in Arunachal Pradesh comprise of *Oncorhynchus mykiss* and *Salmo trutta fario*. The *Oncorhynchus mykiss* were introduced in trout hatchery at Shergaon, west kameng district during 1974-75 (Chaudhary 2002) and could have been escaped into the river at the present sampling site. *Oncorhynchus mykiss* tolerates water temperatures from almost freezing to roughly 24 °C (Vass 2002). Further, the species competes with native species for food at all of their life stages. As juveniles, they feed on zooplankton, insect larvae, small crustaceans and eggs and fries of other fishes. As adults, the species become voracious predators, feeding upon other fishes, crustaceans, snails, frogs, small reptiles and aquatic and terrestrial insects. If the species establishes themselves in the lotic systems, their predatory behaviour could drastically modify the array of native species. As a result, they may disrupt the ecological balance of these native aquatic systems. As we collected five specimens of invasive species, ranging from 58 to 120 mm in SL, it is probable that the species have been able to establish natural population in the river.

Invasiveness of *Cyprinus carpio* and *Oreochromis mossambica* in lotic systems seem to be a serious threat to other native fishes. Vass and Gopakumar (2002) stated that introduction of *Cyprinus carpio* is an evidence for the decline of local snow-trout fishery in some of the upland lakes in India. Similarly, Bhaumik et al. (2006) also raised issues that *Oreochromis mossambica* are being harvested at increased level from reservoirs, reducing the catches of important cultivable food fishes.

This communication is primarily aimed to compile the information generated by us and previous workers on the occurrence of various fish species from the lotic systems of the state of Arunachal Pradesh, India. Hence, the details about taxonomy and speciation have not been considered.

LISTS OF SPECIES

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LISTS OF SPECIES

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Appendix 1. Fish species examined during the study.

Type	Registration No. in our Museum	Nos. of specimen examined	SL (in mm) range	Name of Rivers
Order OSTEGLLOSSIFORMES				
Family Notopteridae				
1. <i>Notopterus notopterus</i> (Pallas 1769)	RGUMF-0163	4	115-180	Ranga at Kimin
Order ANGUILLIFORMES				
Family Anguillidae				
2. <i>Anguilla bengalensis</i> (Gray 1831)	RGUMF-0165	1	330	Ranga at Kimin
Order CLUPEIFORMES				
Family Clupeidae				
3. <i>Gudusia chapra</i> (Hamilton 1822)	RGUMF-0164	5	70-100	Dikrong at Doimukh
Order CYPRINIFORMES				
Family Cyprinidae				
4. <i>Salmophasia bacaila</i> (Hamilton 1822)	RGUMF-0008	5	46-78	Dikrong at Doimukh
5. <i>Aspidoparia jaya</i> (Hamilton 1822)	RGUMF-0010 to 11	4	57-70	Balijan; Dikrong at Doimukh
6. <i>Aspidoparia morar</i> (Hamilton 1822)	RGUMF-0009	7	53-96	Poma at Ramgath
7. <i>Barilius barna</i> (Hamilton 1822)	RGUMF-0012	5	52-68	Poma at Ramgath
8. <i>Barilius bendelisis</i> (Hamilton 1807)	RGUMF-0013 to 14 RGUMF-0016 to 17	21	60-180	Dikrong at Doimukh; Poma at Ramgath; Ranga at Kimin; Kameng at Balukpung
9. <i>Barilius vagra</i> (Hamilton 1822)	RGUMF-0018	21	173-190	Ranga at Kimin
10. <i>Raiamas bola</i> (Hamilton 1822)	RGUMF-0019	4	68-130	Poma at Ramgath
11. <i>Chela laubuca</i> (Hamilton 1822)	RGUMF-0168	14	35-45	Poma at Ramgath

LISTS OF SPECIES

Type	Registration No. in our Museum	Nos. of specimen examined	SL (in mm) range	Name of Rivers
12. <i>Esomus danricus</i> (Hamilton 1822)	RGUMF-0020	3	37-41	Dikrong at Doimukh
13. <i>Danio dangila</i> (Hamilton 1822)	RGUMF-0021	9	42-57	Poma at Poma
14. <i>Danio rerio</i> (Hamilton 1822)	RGUMF-0022	16	10-34	Dikrong at Doimukh
15. <i>Devario aequipinnatus</i> (McClelland 1839)	RGUMF-0023-26	30	32-75	Kele; Poma at Poma; Labia; Kalpangi
16. <i>Devario devario</i> (Hamilton 1822)	RGUMF-0027	5	48-60	Ranga at Kimin
17. <i>Rasbora daniconius</i> (Hamilton 1822)	RGUMF-0169	2	41-48	Ranga at Kimin
18. <i>Amblypharyngodon mola</i> (Hamilton 1822)	RGUMF-0028	4	54-57	Balijan
19. <i>Cyprinus carpio</i> Linnaeus 1758	RGUMF-0029	2	110-115	Kele
20. <i>Tor putitora</i> (Hamilton 1822)	RGUMF-0034 to 35	20	60-225	Poma at Ramgath; Sipu at Aalo
21. <i>Tor tor</i> (Hamilton 1822)	RGUMF-0030 to 33	22	52-160	Poma at Poma; Ranga at Yazali; Kalpangi; Kameng at Balukpung
22. <i>Neolissochilus hexagonolepis</i> (McClelland 1839)	RGUMF-0036 to 39	6	70-150	Ranga at Kimin; Siren; Poma at Poma; Kameng at Balukpung
23. <i>Osteobrama cotio</i> (Hamilton 1822)	RGUMF-0042	1	48	Poma at Poma
24. <i>Chagunius chagunio</i> (Hamilton 1822)	RGUMF-0043	4	75-140	Poma at Poma
25. <i>Oreichthys</i> sp. 1	RGUMF-0045	15	19-27	Ranga at Kimin
26. <i>Puntius chola</i> (Hamilton 1822)	RGUMF-0046	18	45-76	Ranga at Kimin
27. <i>Puntius conchoni</i> (Hamilton 1822)	RGUMF-0047	25	33-50	Poma at Poma
28. <i>Puntius sophore</i> (Hamilton 1822)	RGUMF-0048	15	45-80	Dikrong at Doimukh
29. <i>Puntius ticto</i> (Hamilton 1822)	RGUMF-0049	11	35-47	Poma at Poma
30. <i>Puntius sarana</i> (Hamilton 1822)	RGUMF-0050	1	120	Poma at Poma
31. <i>Semiplotus semiplotus</i> (McClelland 1839)	RGUMF-0057 to 58	16	75-165	Sipu at Aalo; Dikrong at Doimukh
32. <i>Cirrhinus mrigala</i> (Hamilton 1822)	RGUMF-0059	3	110-150	Ranga at Kimin
33. <i>Cirrhinus reba</i> (Hamilton 1822)	RGUMF-0060	1	145	Dikrong at Doimukh
34. <i>Labeo calbasu</i> (Hamilton 1822)	RGUMF-0052	3	100-115	Ranga at Kimin
35. <i>Labeo gonius</i> (Hamilton 1822)	RGUMF-0051	10	75-120	Ranga at Kimin
36. <i>Labeo pangusia</i> (Hamilton 1822)	RGUMF-0054	3	130-175	Dikrong at Doimukh
37. <i>Labeo rohita</i> (Hamilton 1822)	RGUMF-0053	4	116-125	Dikrong at Doimukh
38. <i>Bangana dero</i> (Hamilton 1822)	RGUMF-0055 to 56	4	105-205	Dikrong at Sagalee; Ranga at Kimin
39. <i>Schizothorax richardsonii</i> (Gray 1832)	RGUMF-0061 to 64	15	30-160	Sangi; Siren; Kele; Panye
40. <i>Schizothorax progastus</i> (McClelland 1839)	RGUMF-0066	11	45-125	Dikrong at Sagalee
41. <i>Schizothorax</i> sp. 1	RGUMF-0067 to 68	5	70-123	Kameng at Balukpung; Ranga at Kimin
42. <i>Schizothorax</i> sp. 2	RGUMF-0069	15	65-115	Kameng at Seppa
43. <i>Crossocheilus latius</i> (Hamilton 1822)	RGUMF-0070 to 73	18	65-172	Panye; Ranga at Yazali; Poma at Ramgath; Ranga at Kimin
44. <i>Garra annandalei</i> Hora 1921	RGUMF-0074 to 76	29	35-100	Ranga at Kimin; Kameng at Balukpung; Panye
45. <i>Garra lissorhynchus</i> (McClelland 1842)	RGUMF-0081	4	38-70	Noadhing at Namdapha
46. <i>Garra gotyla</i> (Gray 1830)	RGUMF-0077 to 80	73	40-143	Sipu at Doji; Poma at Ramgath; Ranga at Kimin; Dikrong at Doimukh
47. <i>Garra kalpangii</i> sp. nov.	RGUMF-0006 to 07	10	50-72	Kalpangi
48. <i>Garra</i> sp. 1	RGUMF-0183	5	50-100	Poma at Poma
49. <i>Garra</i> sp. 2	RGUMF-0184 to 85	16	42-130	Labia; Siren
50. <i>Garra</i> sp. 3	RGUMF-0167	8	40-150	Kalpangi
Family Psilorhynchidae				
51. <i>Psilorhynchus balitora</i> (Hamilton 1822)	RGUMF-0082	25	40-65	Sipu at Doji
52. <i>Psilorhynchus homaloptera</i> Hora and Mukerji 1935	RGUMF-0083 to 85	18	42-80	Sireng; Kalpangi; Dikrong at Doimukh
53. <i>Psilorhynchus arunachalensis</i> (Nebeshwar, Bagra and Das 2007)	RGUMF-0001 to 05	15	65-106	Dirang; Dikrong at Doimukh; Siang; Sireng
Family Cobitidae				
54. <i>Acanthocobitis botia</i> (Hamilton 1822)	RGUMF-0087 to 88	8	62-67	Poma at Poma; Sinki
Family Balitoridae				

LISTS OF SPECIES

Type	Registration No. in our Museum	Nos. of specimen examined	SL (in mm) range	Name of Rivers
55. <i>Balitora brucei</i> Gray 1830	RGUMF-0086	10	100-105	Panye
56. <i>Nemacheilus rupecula</i> (McClelland 1838)	RGUMF-0089 to 90	6	65-90	Sipu at Doji; Panye
57. <i>Schistura</i> sp. 1	RGUMF-0091	15	55-75	Sipu at Doji
58. <i>Schistura</i> sp. 2	RGUMF-0170	1	71	Dikrong at Doimukh
59. <i>Aborichthys kempfi</i> Chaudhuri 1913	RGUMF-0092 to 94	38	38-85	Kalpangi; Labia; Sipu at Doji
60. <i>Aborichthys elongatus</i> Hora 1921	RGUMF-0095	13	65-100	Sinki
61. <i>Physoschistura</i> sp. 1	RGUMF-0171	2	40-42	Dikrong at Doimukh
62. <i>Botia dario</i> (Hamilton 1822)	RGUMF-0096	5	55-65	Dikrong at Doimukh
63. <i>Botia rostrata</i> Gunther 1868	RGUMF-0097 to 98	17	60-115	Panye; Ranga at Kimin
64. <i>Canthophrys gongota</i> (Hamilton 1822)	RGUMF-0099	1	90	Dikrong at Doimukh
65. <i>Lepidocephalus guntea</i> (Hamilton 1822)	RGUMF-0100	17	43-72	Dikrong at Doimukh
66. <i>Lepidocephalichthys</i> sp.	RGUMF-0101	2	70-85	Poma at Ramgath
Order SILURIFORMES				
Family Bagridae				
67. <i>Batasio fasciolatus</i> Ng 2006	RGUMF-0102	7	43-83	Panye
68. <i>Mystus cavasius</i> (Hamilton 1822)	RGUMF-0103	6	75-100	Dikrong at Doimukh
69. <i>Mystus bleekeri</i> (Day 1877)	RGUMF-0105	4	85-110	Dikrong at Doimukh
70. <i>Mystus vittatus</i> (Bloch 1794)	RGUMF-0104	6	47-75	Dikrong at Doimukh
71. <i>Mystus montanus</i> (Jerdon 1849)	RGUMF-0172	10	45-80	Dikrong at Doimukh
72. <i>Mystus</i> sp. 1	RGUMF-0106	7	50-85	Dikrong at Doimukh
73. <i>Sperata aor</i> (Hamilton 1822)	RGUMF-0173	7	125-378	Subansiri at Gerukamukh
74. <i>Sperata seenghala</i> (Sykes 1839)	RGUMF-0174	7	196-382	Subansiri at Gerukamukh
Family Siluridae				
75. <i>Ompok bimaculatus</i> (Bloch 1794)	RGUMF-0108	2	75-80	Ranga
76. <i>Ompok pabo</i> (Hamilton 1822)	RGUMF-0109	1	170	Dikrong at Doimukh
77. <i>Ompok</i> sp. 1	RGUMF-0175	5	63-175	Epipani
78. <i>Pterocryptis gangetica</i> Peters 1861	RGUMF-0110	6	100-125	Dikrong at Doimukh
Family Schilbeidae				
79. <i>Ailia coila</i> (Hamilton 1822)	RGUMF-0111	6	50-115	Ranga
80. <i>Neotropius atherinoides</i> (Bloch 1794)	RGUMF-0112	9	50-63	Balijan
81. <i>Eutropiichthys vacha</i> (Hamilton 1822)	RGUMF-0113	1	145	Balijan
Family Amblycipitidae				
82. <i>Amblyceps arunachalensis</i> Nath and Dey 1989	RGUMF-0117	4	45-100	Subansiri at Daporijo
83. <i>Amblyceps apangi</i> Nath and Dey 1989	RGUMF-0114 to 16	15	45-120	Subansiri at Daporijo; Panye; Kalpangi
84. <i>Amblyceps</i> sp. 1	RGUMF-0119	3	45-70	Subansiri at Daporijo
85. <i>Amblyceps</i> sp. 2	RGUMF-0118	1	160	Dikrong at Sagalee
Family Sisoridae				
86. <i>Bagarius bagarius</i> (Hamilton 1822)	RGUMF-0120	1	420	Dirang
87. <i>Gagata cenia</i> (Hamilton 1822)	RGUMF-0121	4	43-55	Poma at Ramgath
88. <i>Gogangra viridescens</i> (Hamilton 1822)	RGUMF-0122	2	54-56	Dikrong at Doimukh
89. <i>Nangra assamensis</i> Sen and Biswas 1994	RGUMF-0176	5	54-56	Dikrong at Doimukh
90. <i>Glyptothorax cavia</i> (Hamilton 1822)	RGUMF-0123	2	100-170	Noadihing at Namdapha
91. <i>Glyptothorax telchitta</i> (Hamilton 1822)	RGUMF-0186	3	54-68	Singen
92. <i>Glyptothorax</i> sp. 1	RGUMF-0124 to 25	17	65-150	Siren; Noadihing at Namdapha
93. <i>Glyptothorax</i> sp. 2	RGUMF-0126	2	100-125	Noadihing at Namdapha
94. <i>Glyptothorax</i> sp. 3	RGUMF-0127	8	40-120	Sireng
95. <i>Oreoglanis setiger</i> Ng and Rainboth 2001	RGUMF-0187	4	40-76	Kameng at Balukpung
96. <i>Parachiloglanis hodgarti</i> (Hora 1923)	RGUMF-0129	4	35-70	Kameng at Balukpung
97. <i>Pareuchiloglanis kamengensis</i> (Jayaram 1966).	RGUMF-0128	7	35-75	Baichom
98. <i>Exostoma labiatum</i> (McClelland 1842)	RGUMF-0130	2	40-42	Kurung
99. <i>Pseudecheneis sulcata</i> (McClelland 1842)	RGUMF-0132	5	70-100	Panye
100. <i>Pseudecheneis sirenica</i> Vishwanath and Darshan 2007	RGUMF-0131	10	85-130	Siren
Family Erethistidae				
101. <i>Erethistes pussilus</i> Muller and Troschel 1849	RGUMF-0134	1	45	Dikrong at Doimukh

LISTS OF SPECIES

Type	Registration No. in our Museum	Nos. of specimen examined	SL (in mm) range	Name of Rivers
102. <i>Hara hara</i> (Hamilton 1822)	RGUMF-0136	1	36	Dikrong at Doimukh
103. <i>Hara jerdoni</i> Day 1870	RGUMF-0135	1	27	Dikrong at Doimukh
104. <i>Hara</i> sp. 1	RGUMF-0177	1	35	Dikrong at Doimukh
105. <i>Pseudolaguvia</i> sp. 1	RGUMF-0137	1	32	Ranga at Kimin
106. <i>Pseudolaguvia</i> sp. 2	RGUMF-0138	1	30	Balijan
107. <i>Pseudolaguvia</i> sp. 3	RGUMF-0178	1	43	Epipani
Family Clariidae				
108. <i>Clarias batrachus</i> (Linnaeus 1758)	RGUMF-0139	1	150	Dikrong at Doimukh
Family Heteropneustidae				
109. <i>Heteropneustes fossilis</i> (Bloch 1794)	RGUMF-0140	12	100-210	Dikrong at Doimukh
Family Chacidae				
110. <i>Chaca chaca</i> (Hamilton 1822)	RGUMF-0141	1	155	Dikrong at Doimukh
Family Olyridae				
111. <i>Olyra longicaudata</i> McClelland 1842	RGUMF-0107	24	33-103	Dikrong at Doimukh
Order SALMONIFORMES				
Family Salmonidae				
112. <i>Oncorhynchus mykiss</i> (Walbaum 1792)	RGUMF-0166	5	58-108	Poma at Ramgath
Order BELONIFORMES				
Family Belonidae				
113. <i>Xenentodon cancila</i> (Hamilton 1822)	RGUMF-0142	4	95-168	Ranga at Kimin
Order SYNBRANCHIFORMES				
Family Symbranchidae				
114. <i>Monopterus cuchia</i> (Hamilton 1822)	RGUMF-0188	4	300-550	Dikrong at Doimukh
Family Mastacembelidae				
115. <i>Macrognathus aral</i> (Bloch and Schneider 1801)	RGUMF-0143	4	90-120	Ranga at Kimin
116. <i>Macrognathus pancalus</i> Hamilton 1822	RGUMF-0144	7	70-115	Ranga at Kimin
117. <i>Mastacembelus armatus</i> (Lacepede 1800)	RGUMF-0145	5	120-375	Ranga at Kimin
Order PERCIFORMES				
Family Chandidae				
118. <i>Chanda nama</i> Hamilton 1822	RGUMF-0146	14	45-77	Ranga at Kimin
119. <i>Pseudambassis ranga</i> (Hamilton 1822)	RGUMF-0147	10	30-73	Ranga at Kimin
120. <i>Parambassis</i> sp. 1	RGUMF-0148	12	37-65	Ranga at Kimin
121. <i>Parambassis</i> sp. 2	RGUMF-0179	1	39	Epipani
Family Nandidae				
122. <i>Badis assamensis</i> Ahl 1937	RGUMF-0180	2	49-52	Dibang
123. <i>Badis badis</i> (Hamilton 1822)	RGUMF-0149	5	23-40	Mebang
124. <i>Badis</i> sp. 1	RGUMF-0150	5	27-52	Dikrong at Doimukh
125. <i>Badis</i> sp. 2	RGUMF-0151	3	35-52	Dikrong at Sagalee
126. <i>Badis</i> sp. 3	RGUMF-0152	3	42-46	Poma at Ramgath
127. <i>Nandus nandus</i> (Hamilton 1822)	RGUMF-0181	1	92	Poma at Ramgath
Family Cichlidae				
128. <i>Oreochromis mossambica</i> (Peters 1852)	RGUMF-0153	8	40-105	Poma at Ramgath
Family Gobiidae				
129. <i>Glossogobius giuris</i> (Hamilton 1822)	RGUMF-0154	10	103-120	Ranga at Kimin
Family Anabantidae				
130. <i>Anabas testudineus</i> (Bloch 1792)	RGUMF-0155	8	80-115	Dikrong at Doimukh
Family Belontiidae				
131. <i>Colisa sota</i> (Hamilton 1822)	RGUMF-0156	9	22-36	Ranga at Kimin
132. <i>Colisa fasciata</i> (Bloch and Schneider 1801)	RGUMF-0157	11	52-69	Poma at Ramgath
133. <i>Colisa labiosus</i> (Day 1877)	RGUMF-0158	4	38-40	Ranga at Kimin
Family Channidae				
134. <i>Channa punctata</i> (Bloch 1793)	RGUMF-0159	9	90-117	Sipu at Doji
135. <i>Channa striata</i> (Bloch 1793)	RGUMF-0160	3	85-115	Sipu at Doji
136. <i>Channa orientalis</i> Bloch and Schneider 1801	RGUMF-0161	12	73-112	Kele
137. <i>Channa</i> sp. 1	RGUMF-0182	3	119-130	Iduli
Order TETRAODONTOFORMES				

LISTS OF SPECIES

Type	Registration No. in our Museum	Nos. of specimen examined	SL (in mm) range	Name of Rivers
Family Tetraodontidae				
138. <i>Tetraodon cutcutia</i> Hamilton 1822	RGUMF-0162	3	52-85	Dikrong at Doimukh
[NB: Names of river where the sampling stations were more than one is written with the station name, for others the station name are given Table1]				

Appendix 2. Fish species consulted during the study.

Type	Literatures consulted	Name of Rivers
Order OSTEGLOSSIFORMES		
Family Notopteridae		
1. <i>Chitala chitala</i> (Hamilton 1822)	Ghosh and Lipton (1982); Nath and Dey (1997)	x
Order CLUPEIFORMES		
Family Engraulidae		
2. <i>Setipinna phasa</i> (Hamilton 1822)	Nath and Dey (2000)	Siang, Noadihing
Order CYPRINIFORMES		
Family Cyprinidae		x
3. <i>Salmophasia phulo</i> (Hamilton 1822)	Sen (2000)	x
4. <i>Securicula gora</i> (Hamilton 1822)	Sen (2000)	x
5. <i>Barilius shacra</i> (Hamilton 1822)	Nath and Dey (2000); Sen (2000)	Noadihing
6. <i>Barilius tileo</i> (Hamilton 1822)	Nath and Dey (2000); Sen (2000)	Kameng; Subansiri; Pachin; Ranga; Siang; Dibang; Lohit
7. <i>Chela cachi</i> (Hamilton 1822)	Nath and Dey (2000); Sen (2000)	Noadihing
8. <i>Megarasbora elanga</i> (Hamilton 1822)	Nath and Dey (2000)	Kameng; Subansiri; Dikrong; Pachin; Ranga; Siang; Dibang; Lohit; Noadihing
9. <i>Neolissochilus hexastichus</i> (McClelland 1839)	Sen (2000)	x
10. <i>Oreichthys cosuatis</i> (Hamilton 1822)	Nath and Dey (2000); Sen (2000)	Noadihing
11. <i>Puntius guganio</i> (Hamilton 1822)	Sen (2000)	x
12. <i>Puntius shalynius</i> Yazdani and Talukdar 1975	Sen (2000)	x
13. <i>Poropuntius clavatus</i> (McClelland 1845)	Ghosh and Lipton (1982); Sen (1985)	x
14. <i>Labeo bata</i> (Hamilton 1822)	Nath and Dey (2000); Sen (1985)	Noadihing
15. <i>Labeo boga</i> (Hamilton 1822)	Sen (1985); Nath and Dey (2000)	x
16. <i>Labeo dyocheilus</i> (McClelland 1839)	Sen (1985)	x
17. <i>Bangana devdevi</i> (Hora 1936)	Nath and Dey (2000); Sen (2000)	x
18. <i>Schizopygopsis stoliczkai</i> Steindachner 1866	Nath and Dey (2000); Ghose and Lipton (1982); Sen (1985)	Kameng; Subansiri
19. <i>Schizopyge esocinus</i> (Heckel 1838)	Nath and Dey (2000); Sen (2000)	x
20. <i>Crossocheilus burmanicus</i> Hora 1936	Sen (2000)	x
21. <i>Garra lamta</i> (Hamilton 1822)	Nath and Dey (2000); Sen (2000)	Tirap
22. <i>Garra kemp</i> Hora 1921	Nath and Dey (2000); Ghosh and Lipton (1982); Sen (2000)	Dikrong
23. <i>Garra mccllelandi</i> (Jerdon 1849)	Nath and Dey (2000)	Kameng; Subansiri; Dikrong; Pachin; Ranga; Siang; Lohit; Tirap
24. <i>Garra naganensis</i> Hora 1921	Nath and Dey (2000); Menon (1999); Ghosh and Lipton (1982); Sen (2000)	Tirap
25. <i>Garra nasuta</i> (McClelland 1838)	Ghosh and Lipton (1982); Sen (2000)	x
26. <i>Garra rupecula</i> (McClelland 1839)	Ghosh and Lipton (1982); Talwar and Jhingran (1991); Sen (2000)	x
Family Psilorhynchidae		
27. <i>Psilorhynchus sucatio</i> (Hamilton 1822)	Sen (2000)	x
Family Cobitidae		
28. <i>Acanthocobitis zonalternans</i> (Blyth 1860)	Sen (2000)	x
Family Balitoridae		

LISTS OF SPECIES

Type	Literatures consulted	Name of Rivers
29. <i>Schistura beavani</i> (Gunther 1868)	Sen (1985)	x
30. <i>Schistura kangjupkhulensis</i> (Hora 1821)	Sen (2000)	x
31. <i>Schistura manipurensis</i> (Chaudhuri 1912)	Nath and Dey (2000); Ghosh and Lipton (1982); Sen (2000)	Tirap
32. <i>Schistura prashadi</i> (Hora 1921)	Ghosh and Lipton (1982)	x
33. <i>Schistura cincticauda</i> (Blyth 1860)	Sen (2000)	x
34. <i>Schistura savona</i> (Hamilton 1822)	Sen (2000)	x
35. <i>Schistura scaturigina</i> (McClelland 1839)	Sen (2000)	x
36. <i>Schistura multifasciatus</i> (Day 1878)	Sen (2000)	
37. <i>Schistura tirapensis</i> Kottelat 1990	Nath and Dey (2000)	x
38. <i>Nemacheilus corica</i> (Hamilton 1822)	Sen (2000)	x
39. <i>Nemacheilus devdevi</i> Hora 1935	Nath and Dey (2000); Sen (2000)	Tirap
40. <i>Schistura sikmaiensis</i> (Hora 1921)	Nath and Dey (2000); Sen (2000)	x
41. <i>Nemacheilus tikaderi</i> (Barman 1985)	Talwar and Jhingran (1991); Sen (2000)	x
42. <i>Aborichthys garoensis</i> Hora 1925	Ghosh and Lipton (1982)	x
43. <i>Lepidocephalichthys annandalei</i> Chaudhuri 1912	Nath and Dey (2000); Sen (2000)	Kameng; Subansiri; Siang; Dibang; Lohit; Noadihing; Buridihing; Tirap
44. <i>Lepidocephalichthys menoni</i> Pillai and Yazdani 1976.	Nath and Dey (2000); Sen (2000)	Noadihing
45. <i>Lepidocephalichthys arunachalensis</i> (Dutta and Barman 1984	Datta and Barman (1984); Nath and Dey (2000)	x
Order SILURIFORMES		
Family Bagridae		
46. <i>Rita rita</i> (Hamilton 1822)	Nath and Dey (2000)	Noadihing
47. <i>Batasio tengana</i> (Hamilton 1822)	Nath and Dey (2000)	Noadihing
48. <i>Batasio batasio</i> (Hamilton 1822)	Sen (2000)	x
49. <i>Chandramara chandramara</i> (Hamilton 1822)	Sen (1995)	x
Family Siluridae		
50. <i>Ompok pabda</i> (Hamilton 1822)	Nath and Dey (2000); Sen (2000)	Kameng; Dikrong; Siang; Noadihing; Burdihing
51. <i>Wallago attu</i> (Bloch and Schneider 1801)	Nath and Dey (2000); Sen (2000)	Kameng; Dikrong; Siang; Noadihing; Burdihing
52. <i>Pterocryptis indicus</i> (Dutta, Barman and Jayaram 1987)	Talwar and Jhingran (1991); Sen (2000)	x
53. <i>Pterocryptis torrentis</i> (Kobayakawa 1989)	Sen (2000)	x
Family Schilbeidae		
54. <i>Clupisoma garua</i> (Hamilton 1822)	Nath and Dey (2000); Sen (2000)	Noadihing
Family Amblycipitidae		
55. <i>Amblyceps mangois</i> (Hamilton 1822)	Sen (1985); Nath and Dey (2000)	x
Family Sisoridae		
56. <i>Glyptothorax brevipinnis</i> Hora 1823	Nath and Dey (1997); Sen (2000)	x
57. <i>Glyptothorax saisii</i> (Jenkins 1910)	Nath and Dey (1997)	x
58. <i>Glyptothorax annandalei</i> Hora 1923	Talwar and Jhingran (1991)	x
59. <i>Glyptothorax gracilis</i> (Gunther 1864)	Talwar and Jhingran (1991)	x
60. <i>Glyptothorax sinensis</i> (Regan 1908)	Nath and Dey (1997)	x
61. <i>Glyptothorax conirostre</i> (Steindachner 1867)	Sen (2000)	x
62. <i>Glyptothorax indicus</i> Talwar 1991	Nath and Dey (2000); Sen (2000)	x
63. <i>Glyptothorax pectinopterus</i> (McClelland 1842)	Nath and Dey (1997); Sen (2000)	x
64. <i>Glyptothorax platypogonides</i> (Bleeker 1855)	Sen (2000)	x
65. <i>Glyptothorax striatus</i> (McClelland 1842)	Sen (2000)	x
66. <i>Exostoma berdmorei</i> Blyth 1860	Ghosh and Lipton (1982); Sen (2000)	x
67. <i>Exostoma stuarti</i> (Hora 1923)	Ghosh and Lipton (1982); Sen (2000)	x
68. <i>Sisor rhabdophorus</i> Hamilton 1822	Nath and Dey (1997)	x
Family Erethistidae		
69. <i>Conta conta</i> (Hamilton 1822)	Sen (2000)	x
70. <i>Pseudolaguvia shawi</i> (Hora 1821)	Tamang et al. (2006)	Senki

LISTS OF SPECIES

Type	Literatures consulted	Name of Rivers
71. <i>Pseudolaguvia ribeiroi</i> (Hora 1921)	Sen (2000)	x
Order SYNGNATHIFORMES		
Family Syngnathidae		x
72. <i>Microphis deocata</i> (Hamilton 1822)	Sen (2000)	x
Order PERCIFORMES		
Family Chandidae		
73. <i>Parambassis baculis</i> (Hamilton 1822)	Ghosh and Lipton (1982); Nath and Dey (1997); Sen (2000)	x
Family Channidae		
74. <i>Channa marulius</i> (Hamilton 1822)	Ghosh and Lipton (1982); Nath and Dey (1997); Sen (2000)	x
75. <i>Channa stewartii</i> (Playfair 1867)	Sen (2000)	x

“x”site not specifically mentioned in the respective reports

LISTS OF SPECIES

Appendix 3



Figure 2. *Oreichthys* sp. 1

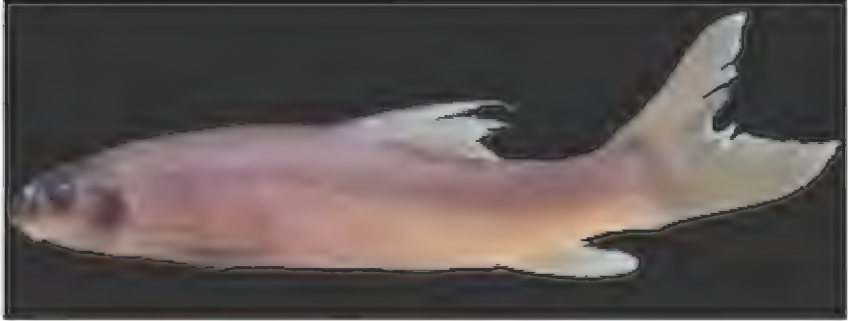


Figure 3. *Schizothorax* sp. 1



Figure 4. *Schixothorax* sp. 2



Figure 5. *Garra* sp. 1



Figure 6. *Garra* sp. 2



Figure 7. *Garra* sp. 3



Figure 8. *Schistura* sp. 1



Figure 9. *Schistura* sp. 2



Figure 10. *Physoschistura* sp. 1



Figure 11. *Ompak* sp. 1

LISTS OF SPECIES



Figure 12. *Amblyceps* sp. 1



Figure 13. *Amblyceps* sp. 2



Figure 14. *Glyptothorax* sp. 1



Figure 15. *Glyptothorax* sp. 2



Figure 16. *Glyptothorax* sp. 3



Figure 17. *Hara* sp. 1



Figure 18. *Pseudolaguvia* sp. 1



Figure 19. *Pseudolaguvia* sp. 2



Figure 20. *Pseudolaguvia* sp. 3



Figure 21. *Parambasis* sp. 1

LISTS OF SPECIES



Figure 22. *Parambasis* sp. 2



Figure 23. *Badis* sp. 1



Figure 24. *Badis* sp. 2



Figure 25. *Badis* sp. 3



Figure 26. *Channa* sp. 1



Figure 27. *Garra kalpangii* sp. nov.



Figure 28. *Oncorhynchus mykiss*

Appendix 4: Voucher specimens

Order: OSTEGLLOSSFORMES Family: Notopteridae 1. *Notopterus notopterus* (Pallas 1769) **Material examined:** RGUMF-0163, 4 exs., 115-180mm SL; Ranga R., Kimin; 4.vi.2005. 2. *Chitala chitala* (Hamilton 1822) **Material consulted:** Ghosh and Lipton (1982); Nath and Dey (1997). **Order: ANGUILLIFORMES Family: Anguillidae** 3. *Anguilla bengalensis* (Gray 1831) **Material examined:** RGUMF-0165, 1 ex., 330mm SL; Ranga R., Kimin; 4.vi.2005. **Order: CLUPEIFORMES Family: Clupeidae** 4. *Gudusia chapra* (Hamilton 1822) **Material examined:** RGUMF-0164, 5 exs., 70-100mm SL; Dikrong R., Doimukh; 3.iii.2005. **Family: Engraulidae** 5. *Setipinna phasa* (Hamilton 1822) **Material consulted:** 4 exs., 130-135mm SL; Siang R. 5 exs., 140-165mm SL; Noadihing R. (Nath and Dey 2000). **Order: CYPRINOFORMES Family: Cyprinidae** 6. *Salmophasia bacaila* (Hamilton 1822) **Material examined:** RGUMF-0008, 5 exs., 46-78mm SL; Dikrong R., Doimukh; 3.iii.2005. 7. *Salmophasia phulo phulo* (Hamilton 1822) v.n. for *Salmostoma phulo* (Hamilton 1822)* **Material consulted:** *Sen (2000). 8. *Securicula gora* (Hamilton 1822) v.n. for *Securicula gora* (Hamilton 1822)* **Material consulted:** *Sen (2000). 9. *Aspidoparia jaya* (Hamilton 1822) **Material examined:** RGUMF-0010, 3 exs., 57-67mm SL; Balijan S., Balijan; 3.iii.2005. RGUMF-

LISTS OF SPECIES

0011, 1 ex., 70mm SL; Dikrong R., Doimukh; 3.iii.2005. 10. *Aspidoparia morar* (Hamilton 1822) **Material examined:** RGUMF-0009, 7 exs., 53-96mm SL; Pare R., Ramgath; 18.iii.2005. 11. *Barilius barna* (Hamilton 1822) **Material examined:** RGUMF-0012, 5 exs., 52-68mm SL; Pare R., Ramgath; 18.iii.2005. 12. *Barilius bendelisis* (Hamilton 1807) **Material examined:** RGUMF-0013, 4 exs., 110-180mm SL; Dikrong R., Doimukh; 3.iii.2005. RGUMF-0017, 4 exs., 45-80mm SL; Pare R., Ramgath; 18.iii.2005. RGUMF-0014, 12 exs., 60-130 mm SL; Ranga R., Kimin; 4.vi.2005. RGUMF-0016, 1 ex., 125mm SL; Kameng R., Balukpung; 20.viii.2005. 13. *Barilius vagra* (Hamilton 1822) **Material examined:** RGUMF-0018, 21 exs., 173-190mm SL; Ranga R., Kimin; 4.vi.2005. 14. *Barilius shacra* (Hamilton 1822) **Material consulted:** 5 exs., 80-150mm SL; Noadihing R. (Nath and Dey 2000). Sen (2000). 15. *Barilius tileo* (Hamilton 1822) **Material consulted:** 4 exs., 50-90mm SL; Kameng R. 6 exs., 125-140mm SL; Subansiri R. 8 exs., 50-140mm SL; Pachin R. 4 exs., 110-119mm SL; Ranga R. 4 exs., 55-60mm SL; Siang R. 3 exs., 75-110mm SL; Dibang R. 3 exs., 65-75mm SL; Lohit R. (Nath and Dey 2000). Sen (2000). 16. *Raiamas bola* (Hamilton 1822) **Material examined:** RGUMF-0019, 4 exs., 68-130mm SL; Pare R., Ramgath; 18.iii.2005. 17. *Chela laubuca* (Hamilton 1822) **Material examined:** RGUMF-0168, 14 exs., 35-45mm SL; Pare R.; 18.iii.2005. 18. *Chela cachius* (Hamilton 1822) **Material consulted:** 4 exs., 52-85mm SL; Noadihing R. (Nath and Dey 2000). Sen (2000). 19. *Esomus danricus* (Hamilton 1822) **Material examined:** RGUMF-0020, 3 exs., 37-41mm SL; Dikrong R., Doimukh; 3.iii.2005. 20. *Danio dangila* (Hamilton 1822) **Material examined:** RGUMF-00219 exs., 42-57mm SL; Poma R., Poma; 5.ii.2005. 21. *Danio rerio* (Hamilton 1822) **Material examined:** RGUMF-0022, 16 exs., 10-34mm SL; Dikrong R., Doimukh; 3.iii.2005. 22. *Devario aequipinnatus* (McClelland 1839) **Material examined:** RGUMF-0023, 3 exs., 50-75mm SL; Kale R., Ziro; 16.vii.2005. RGUMF-0024, 16 exs., 35-67mm SL; Poma R., Poma; 5.ii.2005. RGUMF-0026, 8 exs., 32-70mm SL; Kalpangi R., Yachuli; 18.vii.2005. RGUMF-0025, 3 exs., 6-70mm SL; Labia R., Dev Sagalee; 8.i.2005. 23. *Devario devario* (Hamilton 1822) **Material examined:** RGUMF-0027, 5 exs., 48-60mm SL; Ranga R., Kimin; 4.vi.2005. 24. *Rasbora daniconius* (Hamilton 1822) **Material examined:** RGUMF-0169, 2 exs., 41-48mm SL; Ranga R., Kimin; 4.vi.2005. 25. *Megarasbora elanga* (Hamilton 1822) v.n. for *Rasbora elanga* (Hamilton 1822)* **Material consulted:** 5 exs., 27-30mm SL; Kameng R. 3 exs., 30-32mm SL; Subansiri R. 3 exs., 25-27mm SL; Dikrong R. 3 exs., 31-37mm SL; Pachin R. 4 exs., 20-29mm SL; Ranga R. 5 exs., 30-35mm SL; Siang R. 2 exs. 30mm SL; Dibang R. 3 exs., 25-35mm SL; Lohit R. 4 exs., 25-33mm SL; Noadihing R. *(Nath and Dey 2000). 26. *Amblypharyngodon mola* (Hamilton 1822) **Material examined:** RGUMF-0028, 4 exs., 54-57mm SL; Balijan S., Balijan; 27.ix.2004. 27. *Cyprinus carpio* Linnaeus 1758 **Material examined:** RGUMF-0029, 2 exs., 110-115mm SL; Kela R., Ziro; 16.vii.2005. 28. *Tor putitora* (Hamilton 1822) **Material examined:** RGUMF-0034, 15 exs., 62-135mm SL; Pare R., Ramgath; 18.iii.2005. RGUMF-0035, 5 exs., 60-225mm SL; Sipu R., Aalo; 7.iv.2006. 29. *Tor tor* (Hamilton 1822) **Material examined:** RGUMF-0032, 14 exs., 52-97mm SL; Poma R., Poma; 5.ii.2005. RGUMF-0033, 1 ex., 125mm SL; Ranga R., Yazali; 18.vii.2005. RGUMF-0030, 1 ex., 87mm SL; Kalpangi R., Yachuli; 18.vii.2005. RGUMF-0031, 6 exs., 50-160mm SL; Kameng R., Balukpung; 20.viii.2005. 30. *Neolissochilus hexagonolepis* (McClelland 1839) **Material examined:** RGUMF-0036, 1 ex., 150mm SL; Ranga R., Kimin; 4.vii.2005. RGUMF-0038, 3 exs., 70-110mm SL; Siren R., Ramsing; 1.xi.2006. RGUMF-0039, 1 ex., 125mm SL; Poma R., Poma; 5.ii.2005. RGUMF-0037, 1 ex., 112mm SL; Kameng R., Balukpung; 16.vi.2004. 31. *Neolissochilus hexastichus* (McClelland 1839) **Material consulted:** Sen (2000). 32. *Osteobrama cotio* (Hamilton 1822) **Material examined:** RGUMF-0042, 1 ex., 48mm SL; Poma R., Poma; 5.ii.2005. 33. *Chagunius chagunio* (Hamilton 1822) **Material examined:** RGUMF-0043, 4 exs., 75-140mm SL; Poma R., Poma; 5.ii.2005. 34. *Oreichthys cosuatis* (Hamilton 1822) **Material consulted:** 4 exs., 35-57mm SL; Noadihing R. (Nath and Dey 2000). Sen (2000). 35. *Oreichthys sp. 1* **Material examined:** RGUMF-0045, 15 exs., 19-27mm SL; Ranga R., Kimin; 4.vi.2005. RGUMF-0044, 4 exs., 15-25mm SL; Mebang R., Boleng; 14.vi.2005. (Figure 2). 36. *Puntius chola* (Hamilton 1822) **Material examined:** RGUMF-0046, 18 exs., 45-76 mm SL; Ranga R., Kimin; 4.vi.2005. 37. *Puntius conchoni* (Hamilton 1822) **Material examined:** RGUMF-0047, 25 exs., 33-50mm SL; Poma R., Poma; 5.ii.2005. 38. *Puntius sophore* (Hamilton 1822) **Material examined:** RGUMF-0048, 15 exs., 45-80mm SL; Dikrong R., Doimukh; 3.iii.2005. 39. *Puntius ticto* (Hamilton 1822) **Material examined:** RGUMF-0049, 11 exs., 35-47mm SL; Poma R., Poma; 5.ii.2005. 40. *Puntius sarana* (Hamilton 1822) **Material examined:** RGUMF-0050, 1 ex., 120mm SL; Poma R., Poma; 5.ii.2005. 41. *Puntius guganio* (Hamilton 1822) **Material consulted:** Sen (2000). 42. *Puntius shalynius* Yazdani and Talukdar 1975 **Material consulted:** Sen (2000). 43. *Poropuntius clavatus* (McClelland 1845) v.n. for *Puntius clavatus* (McClelland 1845)* **Material consulted:** Ghosh and Lipton (1982); Sen (1985). 44. *Semiplotus semiplotus* (McClelland 1839) **Material examined:** RGUMF-0057, 12 exs., 75-105mm SL; Sipu R., Aalo; 7.iv.2006. RGUMF-0058, 4 exs., 50-165mm SL; Dikrong R., Doimukh; 3.iii.2005. 45. *Cirrhinus mrigala* (Hamilton 1822) **Material examined:** RGUMF-0059, 3 exs., 110-150mm SL; Ranga R., Kimin; 4.vi.2005. 46. *Cirrhinus reba* (Hamilton 1822) **Material examined:** RGUMF-0060, 1 ex., 145mm SL; Dikrong R., Doimukh; 3.iii.2005. 47. *Labeo calbasu* (Hamilton 1822) **Material examined:** RGUMF-0052, 3 exs., 100-115mm SL; Ranga R., Kimin; 4.vi.2005. 48. *Labeo gonius* (Hamilton 1822) **Material examined:** RGUMF-0051, 10 exs., 75-120mm SL; Ranga R., Kimin; 4.vi.2005. 49. *Labeo pangusia*

LISTS OF SPECIES

(Hamilton 1822) **Material examined:** RGUMF-0054, 3 exs., 130-175mm SL; Dikrong R., Doimukh; 3.iii.2005. 50. *Labeo rohita* (Hamilton, 1822) **Material examined:** RGUMF-0053, 4 exs., 116-125mm SL; Dikrong R., Doimukh; 3.iii.2005. 51. *Labeo bata* (Hamilton 1822) **Material consulted:** 5 exs., 145-260mm SL; Noadihing R. (Nath and Dey 2000). Sen, 1985). 52. *Labeo boga* (Hamilton 1822) **Material consulted:** Sen (1985); Nath and Dey (2000). 53. *Labeo dyocheilus* (McClelland 1839) **Material consulted:** Sen (1985). 54. *Bangana devdevi* (Hora 1936) v.n. for *Labeo devdevi* Hora 1836* **Material consulted:** 4 exs., 140-160mm SL; Noadihing R. *(Nath and Dey 2000). *Sen (2000). 55. *Bangana dero* (Hamilton 1822) v.n. for *Labeo dero* (Heckel 1822) **Material examined:** RGUMF-0056, 2 exs., 180-185mm SL; Dikrong R., Sagalee; 16.viii.2005. RGUMF-0055, 2 exs., 105-205mm SL; Ranga R., Kimin; 4.vi.2005. 56. *Schizothorax richardsonii* (Gray 1832) **Material examined:** RGUMF-0064, 2 exs., 150-160mm SL; Sangi R., Dirang; 24.viii.2005. RGUMF-0062, 1 ex., 130mm SL; Siren R., Ramsing; 2.xi.2005. RGUMF-0063, 10 exs., 60-150mm SL; Kela R., Ziro; 16.vii.2005. RGUMF-0061, 2 exs., 30-55mm SL; Panye R., Tamen; 17.vi.2005. 57. *Schizothorax progastus* (McClelland 1839) **Material examined:** RGUMF-0066, 11 exs., 45-125mm SL; Dikrong R., Sagalee; 7.i.2005. RGUMF-0065, 7 exs., 55-125mm SL; Lohit R.; 15.vii.2004. 58. *Schizothorax* sp. 1 **Material examined:** RGUMF-0067, 1 ex., 74mm SL; Kameng R., Balukpung; 20.viii.2005. RGUMF-0068, 4 exs., 70-123mm SL; Ranga R., Kimin; 4.vi.2005. (Figure 3). 59. *Schizothorax* sp. 2 **Material examined:** RGUMF-0069, 15 exs., 65-115mm SL; Kameng R., Seppa; 10.xii.2005. (Figure 4). 60. *Schizopygopsis stoliczkae* Steindachner 1866 v.n. for *Schizopygopsis stoliczkai* (Steindachner 1866)* **Material consulted:** 3 exs., 130-145mm SL; Kameng R. 5 exs., 120-175mm SL; Subansiri R. *(Nath and Dey 2000). Ghose and Lipton (1982); Sen (1985). 61. *Schizopyge esocinus* (Heckel 1838) **Material consulted:** 3 exs., 105-107mm SL; Siang R. 5 exs., 90-120mm SL; Subansiri R. (Nath and Dey 2000). Sen (2000). 62. *Crossocheilus latius* (Hamilton 1822) **Material examined:** RGUMF-0070, 7 exs., 95-120mm SL; Panye R., Tamen; 18.vii.2005. RGUMF-0073, 7 exs., 73-172mm SL; Ranga R., Yazali; 18.vii.2005. RGUMF-0072, 3 exs., 65-80mm SL; Pare R., Ramgath; 18.iii.2005. RGUMF-0071, 1 ex., 110mm SL; Ranga R., Kimin; 4.vi.2005. 63. *Crossocheilus burmanicus* Hora 1936 **Material consulted:** Sen (2000). 64. *Garra annandalei* Hora 1921 **Material examined:** RGUMF-0076, 2 exs., 55-95mm SL; Ranga R., Kimin; 4.vi.2005. RGUMF-0074, 26 exs., 35-100mm SL; Kameng R., Balukpung; 20.viii.2005. RGUMF-0075, 1 ex., 65mm SL; Panye R., Tamen; 17.vii.2005. 65. *Garra lissorhynchus* (McClelland 1842) **Material examined:** RGUMF-0081, 4 exs., 38-70mm SL; Noadhing R., Deban-Namdapha; 12.ii.2005. 66. *Garra gotyla* (Gray 1830) **Material examined:** RGUMF-0078, 15 exs., 65-143mm SL; Sipu R., Doji; 17.vii.2005. RGUMF-0080, 34 exs., 40-85mm SL; Pare R., Ramgath; 18.iii.2005. RGUMF-0077, 20 exs., 60-120 mm SL; Ranga R., Kimin; 4.vi.2005. RGUMF-0079, 4 exs., 40-90mm SL; Dikrong R., Doimukh; 3.iii.2005. 67. *Garra lamta* (Hamilton 1822) **Material consulted:** 4 exs., 90-103mm SL; Tirap R. (Nath and Dey 2000). Sen (2000). 68. *Garra kempfi* Hora 1921 **Material consulted:** 4 exs., 75-112mm SL; Dikrong R. (Nath and Dey 2000). Ghosh and Lipton (1982); Sen (2000). 69. *Garra mcClellandi* (Jerdon 1849) **Material consulted:** 1 ex., 105mm SL; Kameng R. 4 exs., 110-115mm SL; Subansiri R. 3 exs., 108-112 mm SL; Dikrong R. 2 exs., 85-107mm SL; Pachin R. 3 exs., 101-110mm SL; Ranga R. 4 exs., 120-130mm SL; Siang R. 4 exs., 90-110 mm SL; Lohit R., 4 exs., 90-110mm SL; Tirap R. (Nath and Dey 2000). 70. *Garra naganensis* Hora 1921 **Material consulted:** 4 exs., 70-90mm SL; Tirap R. (Nath and Dey 2000). Menon (1999); Ghosh and Lipton (1982); Sen (2000). 71. *Garra nasuta* (McClelland 1838) **Material consulted:** Ghosh and Lipton (1982); Sen (2000). 72. *Garra rupecula* (McClelland 1839) **Material consulted:** Ghosh and Lipton (1982); Talwar and Jhingran (1991); Sen (2000). 73. *Garra* sp. 1 **Material examined:** RGUMF-0183, 5 exs., 50-100mm SL; Poma R., Poma; 5.ii.2005. (Figure 5). 74. *Garra* sp. 2 **Material examined:** RGUMF-0184, 11 exs., 42-130mm SL; Labia R., Dev Sagalee; 8.vii.2005. RGUMF-0185, 5 exs., 75-115mm SL; Siren R., Ramsing; 2.xi.2005. (Figure 6). 75. *Garra* sp. 3 **Material examined:** RGUMF-0167, 8 exs., 40-150mm SL; Kalpangi R.; 18.vii.2005. (Figure 7). 76. *Garra* sp. 4 **Material examined:** RGUMF-0006, 60mm SL; RGUMF-0007, 9 exs., 50-72mm SL; Kalpangi R., Yachuli; 18.vi.2005. (Figure 8). **Family: Psilorhynchidae** 77. *Psilorhynchus balitora* (Hamilton 1822) **Material examined:** RGUMF-0082, 25 exs., 40-65mm SL; Sipu R., Doji; 17.vii.2005. 78. *Psilorhynchus sucatio* (Hamilton 1822) **Material consulted:** Sen (2000). 79. *Psilorhynchus homaloptera* Hora and Mukerji 1935⁺ **Material examined:** RGUMF-0083, 4 exs., 65-77mm SL; Siren R., Rottung; 31.x.2005. RGUMF-0085, 11 exs., 42-52mm SL; Kalpangi R., Yachuli; 18.vii.2005. RGUMF-0084, 3 exs., 62-80mm SL; Dikrong R., Doimukh; 3.iii.2005. 80. *Psilorhynchus arunachalensis* (Nebeshwar Bagra and Das 2007) v.n. for *Psilorhynchoides arunachalensis* Nibeshwar Bagra and Das, 2007 **Material examined:** (Holotype) RGUMF-0001, Male 92mm, SL; Dirang R., Dirang; 24.viii.2005. (Paratypes) RGUMF-0002, 3 exs., 104-106mm SL; Dirang R., Dirang; 24.viii.2005. RGUMF-0003, 4 exs., 65.-77.mm SL; Dikrong R. Doimukh; 3.iii.2005. RGUMF-0004, 5 exs., 65-70mm SL; Siang R., Pasighat; 7.ii.2005. RGUMF-0005, 2 exs., 61-76mm SL; Sireng R., Rottung; 31.x.2005. **Family: Balitoridae** 81. *Balitora brucei* Gray 1830 **Material examined:** RGUMF-0086, 10 exs., 100-105mm SL; Panye R., Tamen; 17.vii.2005. **Family: Cobitidae** 82. *Acanthocobitis botia* (Hamilton 1822) **Material examined:** RGUMF-0088, 5 exs., 62-67mm SL; Poma R., Poma; 5.ii.2005. RGUMF-0087, 3 exs., 63-65mm SL; Sinki R., Chimpu, Itanagar; 7.vi.2005. 83. *Acanthocobitis zonalternans* (Blyth 1860) **Material consulted:** Sen (2000). 84. *Schistura rupecula* McClelland 1838

LISTS OF SPECIES

Material examined: RGUMF-0089, 2 exs., 85-90mm SL; Sipu R., Doji; 6.ii.2006. RGUMF-0090, 4 exs., 65-80mm SL; Panye R., Tamen; 17.vii.2005. 85. *Schistura beavani* (Gunther 1868) v.n. for *Nemacheilus beavani* Gunther 1868* **Material consulted:** *Sen (1985). 86. *Schistura kangjupkhulensis* (Hora 1821) v.n. for *Nemacheilus kangjupkhulensis* (Hora, 1821)* **Material consulted:** *Sen (2000). 87. *Schistura manipurensis* (Chaudhuri 1912) **Material consulted:** 4 exs., 30-42mm SL; Tirap R. (Nath and Dey 2000). Ghosh and Lipton (1982); Sen (2000). 88. *Schistura prashadi* (Hora 1921) **Material consulted:** Ghosh and Lipton (1982). 89. *Schistura cincticauda* (Blyth 1860) **Material consulted:** Sen (2000). 90. *Schistura savona* (Hamilton 1822) **Material consulted:** Sen (2000). 91. *Schistura scaturigina* (McClelland 1839) **Material consulted:** Sen (2000). 92. *Schistura multifasciatus* (Day 1878) v.n. for *Nemacheilus multifasciatus* Day 1878* **Material consulted:** *Sen (2000). 93. *Schistura* sp. 1 **Material examined:** RGUMF-0091, 15 exs., 55-75mm SL; Sipu R., Doji; 6.ii.2006. (Figure 9). 94. *Schistura* sp. 2 **Material examined:** RGUMF-0170, 1 ex., 71mm SL; Dikrong R., Doimukh; 6.ii.2005. (Figure 10). 95. *Nemacheilus arunachalensis* (Menon 1987) **Material consulted:** 6 exs., 70-92mm SL; Dikrong R. (Nath and Dey 2000). 96. *Nemacheilus corica* (Hamilton 1822) **Material consulted:** Sen (2000). 97. *Nemacheilus devdevi* Hora 1935 **Material consulted:** 4 exs., 35-50mm SL; Tirap R. (Nath and Dey 2000). Sen (2000). 98. *Nemacheilus sikmaiensis* (Hora 1921) **Material consulted:** 4 exs., 40-55mm SL; Dikrong R. (Nath and Dey 2000). Sen (2000). 99. *Nemacheilus tikaderi* (Barman 1985) v.n. for *Aborichthys tikaderi** **Material consulted:** Talwar and Jhingran (1991); *Sen (2000). 100. *Aborichthys kempfi* Chaudhuri 1913 **Material examined:** RGUMF-0093, 1 ex., 80mm SL; Kalpangi R., Yachuli; 18.vii.2005. RGUMF-0094, 1 ex., 85mm SL; Labia R., Dev Sagalee; 8.i.2005. RGUMF-0092, 36 exs., 38-85mm SL; Sipu R., Doji; 17.vii.2005. 101. *Aborichthys elongatus* Hora 1921 **Material examined:** RGUMF-0095, 13 exs., 65-100mm SL; Sirki R., Chimpu, Itanagar; 9.iv.2005. 102. *Aborichthys garoensis* Hora 1925 **Material consulted:** Ghosh and Lipton (1982). 103. *Physoschistura* sp. **Material examined:** RGUMF-0171, 2 exs., 40-42mm SL; Dikrong R., Doimukh; 6.ii.2005. (Figure 11). 104. *Botia dario* (Hamilton 1822) **Material examined:** RGUMF-0096, 5 exs., 55-65mm SL; Dikrong R., Doimukh; 3.iii.2005. 105. *Botia rostrata* Gunther 1868 **Material examined:** RGUMF-0097, 3 exs., 105-115mm SL; Panye R., Tamen; 17.vii.2005. RGUMF-0098, 14 exs., 60-95mm SL; Ranga R., Kimin; 4.vi.2005. 106. *Canthophrys gongota* (Hamilton 1822) *Somileptes gongota* (Hamilton 1822) **Material examined:** RGUMF-0099, 1 ex., 90mm SL; Dikrong R., Doimukh; 3.iii.2005. 107. *Lepidocephalus guntea* (Hamilton 1822) **Material examined:** RGUMF-0100, 17 exs., 43-72mm SL; Dikrong R., Doimukh; 3.iii.2005. 108. *Lepidocephalichthys annandalei* Chaudhuri 1912 v.n. for *Lepidocephalus annandalei* (Chaudhuri 1912)* **Material consulted:** 5 exs., 45-50 mm SL; Kameng R. 3 exs., 35-40mm SL; Subansiri R. 4 exs., 50-63mm SL; Siang R. 2 exs., 60-65mm SL; Dibang R. 1 ex., 65mm SL; Lohit R. 3 exs., 60-62mm SL; Noadihing R. 3 exs., 40-55mm SL; Buridihing R. 3 exs., 55-59mm SL; Tirap R. (Nath and Dey 2000). *Sen (2000). 109. *Lepidocephalichthys menoni* Pillai and Yazdani 1976 v.n. for *Lepidocephalus caudofurcatus* Tilak and Hussain 1978*, *Lepidocephalus menoni* (Pillai and Yazdani 1976)** **Material consulted:** 5 exs., 40-75mm SL; Noadihing R. *(Nath and Dey 2000). **Sen (2000). 110. *Lepidocephalichthys arunachalensis* (Dutta and Barman 1984) v.n. for *Noemacheilus arunachalensis* (Dutta and Barman 1984)* **Material consulted:** *Datta and Barman (1984); *Nath and Dey (2000). 111. *Lepidocephalichthys* sp. **Material examined:** RGUMF-0101, 2 exs., 70-85mm SL; Pare R., Ramgath; 18.iii.2005. **Order SILURIFORMES Family: Bagridae** 112. *Rita rita* (Hamilton 1822) **Material consulted:** 5 exs., 130-145mm SL; Noadihing R. (Nath and Dey 2000). 113. *Batasio fasciolatus* Ng 2006⁺ **Material examined:** RGUMF-0102, 7 exs., 43-83mm SL; Panye R., Tamen; 17.vi.2005. 114. *Batasio tengana* (Hamilton 1822) **Material consulted:** 5 exs., 90-105mm SL; Noadihing R. (Nath and Dey 2000). 115. *Batasio batasio* (Hamilton 1822) **Material consulted:** Sen (2000). 116. *Mystus cavasius* (Hamilton 1822) **Material examined:** RGUMF-0103, 6 exs., 75-100mm SL; Dikrong R., Doimukh; 3.iii.2005. 117. *Mystus bleekeri* (Day 1877) **Material examined:** RGUMF-0105, 4 exs., 85-110mm SL; Dikrong R., Doimukh; 3.iii.2005. 118. *Mystus vittatus* (Bloch 1794) **Material examined:** RGUMF-0104, 6 exs., 47-75mm SL; Dikrong R., Doimukh; 3.iii.2005. 119. *Mystus montanus* (Jerdon 1849)⁺ v.n. for *Mystus dibrugarensis* (Chaudharu 1913) **Material examined:** RGUMF-0172, 10 exs., 45-80mm SL; Dikrong R., Doimukh; 3.viii.2006. 120. *Mystus* sp. **Material examined:** RGUMF-0106, 7 exs., 50-85mm SL; Dikrong R., Doimukh; 3.iii.2005. 121. *Chandramara chandramara* (Hamilton 1822) **Material consulted:** Sen (1995). 122. *Sperata aor* (Hamilton 1822) **Material examined:** RGUMF-0173, 7 exs., 125-378mm SL; Subansiri R., Gerukamukh; 15.xi.2006. 123. *Sperata seenghala* (Sykes 1839) **Material examined:** RGUMF-0174, 7 exs., 196-382mm SL; Subansiri R., Gerukamukh; 15.xi.2006. 124. *Olyra longicaudata* McClelland 1842 **Material examined:** RGUMF-0107, 24 exs., 33-103mm SL; Dikrong R., Doimukh, 3.iii.2005. **Family: Siluridae** 125. *Ompok bimaculatus* (Bloch 1794) **Material examined:** RGUMF-0108, 2 exs., 75-80mm SL; Ranga R., Kimin; 4.vi.2005. 126. *Ompok pabo* (Hamilton 1822) **Material examined:** RGUMF-0109, 1 ex., 170mm SL; Dikrong R., Doimukh; 3.iii.2005. 27. *Ompok pabda* (Hamilton 1822) **Material consulted:** 3 exs., 140-145mm SL; Kameng R. 2 exs., 127-130mm SL; Dikrong R. 5 exs., 90-110mm SL; Siang R. 6 exs., 105-135mm SL; Noadihing R. 5 exs., 115-130mm SL; Burdihing R. (Nath and Dey 2000). Sen (2000). 128. *Ompok* sp. **Material examined:** RGUMF-0175, 5 exs., 63-175mm SL; Epipani R., Roing; 3.iii.2005. (Figure 12). 129. *Wallago attu* (Bloch and Schneider 1801) **Material**

LISTS OF SPECIES

consulted: 4 exs., 150-165mm SL; Kameng R. 3 exs., 180-200mm SL; Dikrong R. 5 exs., 110-140mm SL; Siang R. 5 exs., 110-210mm SL; Noadihing R. 4 exs., 160-173mm SL; Burdhing R. (Nath and Dey 2000). Sen (1985). 130. *Pterocryptis afghana* (Gunther 1864) v.n. for *Silurus afghana* Gunther, 1864* **Material examined:** RGUMF-0110, 6 exs., 100-125mm SL; Dikrong, Doimukh; 3.iii.2005. *(Nath and Dey 2000). 131. *Pterocryptis indicus* (Dutta Barman and Jayaram, 1987) **Material consulted:** Talwar and Jhingran (1991); Sen (2000). 132. *Pterocryptis torrentis* (Kobayakawa 1989) **Material consulted:** Sen (2000). **Family: Schilbeidae** 133. *Ailia coila* (Hamilton 1822) **Material examined:** RGUMF-0111, 6 exs., 50-115mm SL; Ranga R., Kimin; 4.vi.2005. 134. *Neotropius atherinoides* (Bloch 1794) **Material examined:** RGUMF-0112, 9 exs., 50-63mm SL; Balijan S., Balijan; 15.iv.2004. 135. *Eutropiichthys vacha* (Hamilton 1822)⁺ **Material examined:** RGUMF-0113, 1 ex., 145mm SL; Balijan S., Balijan; 15.iv.2004. 136. *Clupisoma garua* (Hamilton 1822) **Material consulted:** 5 exs., 130-180mm SL; Noadihing R. (Nath and Dey 2000). Sen (2000). **Family: Amblycipitidae** 137. *Amblyceps arunachalensis* Nath and Dey 1989 **Material examined:** RGUMF-0117, 4 exs., 45-100mm SL; Subansiri R., Daporijo; 7.vi.2005. 138. *Amblyceps apangi* Nath and Dey 1989 **Material examined:** RGUMF-0116, 7 exs., 60-120mm SL; Subansiri R., Daporijo; 7.vi.2005. RGUMF-0114, 7 exs., 45-80mm SL; Panye R., Tamen; 17.vii.2005. RGUMF-0115, 1 ex., 78mm SL, Kalpangi R., Yachuli; 18.vii.2005. 139. *Amblyceps mangois* (Hamilton 1822) **Material consulted:** Sen (1985); Nath and Dey (2000). 140. *Amblyceps* sp. 1 **Material examined:** RGUMF-0119, 3 exs., 45-70mm SL; Subansiri R., Daporijo; 7.vi.2005. (Figure 13). 141. *Amblyceps* sp. 2 **Material examined:** RGUMF-0118, 1 ex., 160mm SL; Dikrong R., Sagalee; 7.i.2005. (Figure 14). **Family: Sisoridae** 142. *Bagarius bagarius* (Hamilton 1822) **Material examined:** RGUMF-0120, 1 ex., 420mm SL; Dirang R., Dirang; 24.viii.2005. 143. *Gagata cenia* (Hamilton 1822)⁺ **Material examined:** RGUMF-0121, 4 exs., 43-55mm SL; Pare R., Ramgath; 18.iii.2005. 144. *Gogangra viridescens* (Hamilton 1822)⁺ **Material examined:** RGUMF-0122, 2 exs., 54-56mm SL; Dikrong R., Doimukh; 3.iii.2005. 145. *Nangra assamensis* Sen and Biswas 1994⁺ **Material examined:** RGUMF-0176, 5 exs., 54-56mm SL; Dikrong R., Doimukh; 3.iii.2005. 146. *Glyptothorax cavia* (Hamilton 1822) **Material examined:** RGUMF-0123, 2 exs., 100-170mm SL; Noadhing R., Deban-Namdapha; 12.ii.2005. 147. *Glyptothorax telchitta* (Hamilton 1822) **Material examined:** RGUMF-0186, 3 exs., 54-68mm SL; Singen R., Kadu; 23.i.2006. 148. *Glyptothorax brevipinnis* Hora 1923 **Material consulted:** Nath and Dey (1997); Sen (2000). 149. *Glyptothorax saisii* (Jenkins 1910) v.n. for *Glyptothorax coheni* Ganguli, Dutta and Sen, 1972* **Material consulted:** * Nath and Dey (1997). 150. *Glyptothorax annandalei*, Hora 1923 **Material consulted:** Talwar and Jhingran (1991). 151. *Glyptothorax gracilis* (Gunther 1864) **Material consulted:** Talwar and Jhingran (1991). 152. *Glyptothorax sinensis* (Regan 1908) v.n. for *Glyptothorax sinensis manipurensis* (Menon 1955)* **Material consulted:** *Nath and Dey (1997). 153. *Glyptothorax conirostre* (Steindachner 1867) **Material consulted:** Sen (2000). 154. *Glyptothorax indicus* Talwar 1991 v.n. for *Glyptothorax horai* (Flower, 1934)* **Material consulted:** *Nath and Dey (2000); Sen (2000) 155. *Glyptothorax pectinopterus* (McClelland 1842) **Material consulted:** Nath and Dey (1997); Sen (2000). 156. *Glyptothorax platypogonides* (Bleeker 1855) **Material consulted:** Sen (2000). 157. *Glyptothorax striatus* (McClelland 1842) **Material consulted:** Sen (2000). 158. *Glyptothorax* sp. 1 **Material examined:** RGUMF-0124, 5 exs., 105-150mm SL; Siren R., Ramsing; 2.xi.2005. RGUMF-0125, 12 exs., 65-115mm SL Noadhing R., Deban-Namdapha; 12.ii.2005. (Figure 15). 159. *Glyptothorax* sp. 2 **Material examined:** RGUMF-0126, 2 exs., 100-125mm SL; Noadhing R., Deban-Namdapha; 12.ii.2005. (Figure 16). 160. *Glyptothorax* sp. 3 **Material examined:** RGUMF-0127, 8 exs., 40-120mm SL; Siren R., Rottung; 31.x.2005. (Figure 17). 161. *Oreoglanis setiger* Ng and Rainboth 2001⁺ **Material examined:** RGUMF-0187, 4 exs., 40-76mm SL; Kameng R., Balukpung; 20.viii.2005. 162. *Parachiloglanis hodgarti* (Hora 1923) **Material examined:** RGUMF-0129, 4 exs., 35-70mm SL; Kameng R., Balukpung; 20.viii.2005. 163. *Pareuchiloglanis kamengensis* (Jayaram 1966) v.n. for *Euchiloglanis kamengensis* Jayaram 1966* **Material examined:** RGUMF-0128, 7 exs., 35-75mm SL; Baichom R., Rupa; 21.viii.2005. *Nath and Dey (2000). 164. *Exostoma labiatum* (McClelland 1842) **Material examined:** RGUMF-0130, 2 exs., 40-42 mm SL; Kurung R.; 12.i.2005. 165. *Exostoma berdmorei* Blyth 1860 **Material consulted:** Ghosh and Lipton (1982); Sen (2000). 166. *Exostoma stuarti* (Hora, 1923) **Material consulted:** Ghosh and Lipton (1982); Sen (2000). 167. *Pseudecheneis sulcata* (McClelland, 1842) **Material examined:** RGUMF-0132, 5 exs., (70-100) SL; Panye R., Tamen; 17.vii.2005. 168. *Pseudecheneis sirenica* Vishwanath and Darshan 2007 **Material examined:** RGUMF-0131, 10 exs., 85-130mm SL; Siren R., Ramsing; 2.xi.2005. 169. *Sisor rhabdophorus* Hamilton 1822 **Material consulted:** Nath and Dey (1997). **Family: Erethistidae** 170. *Erethistes pussilus* Muller and Troschel 1849 **Material examined:** RGUMF-0134, 1 ex., 45mm SL; Dikrong R., Doimukh; 3.iii.2005. 171. *Hara hara* (Hamilton 1822) **Material examined:** RGUMF-0136, 1 ex., 36-40mm SL; Dikrong R., Doimukh; 3.iii.2005. 172. *Hara jerdoni* Day 1870 **Material examined:** RGUMF-0135, 1 ex., 27mm SL; Dikrong R., Doimukh; 3.iii.2005. 173. *Hara* sp. **Material examined:** RGUMF-0177, 1 ex., 35mm SL; Dikrong R., Doimukh; 3.iii.2005. (Figure 18). 174. *Conta conta* (Hamilton 1822) **Material consulted:** Sen (2000). 175. *Pseudolaguvia shawi* (Hora 1821) **Material consulted:** 7 exs., 27-29mm SL; Senki stream, Itanagar; September 2004. Tamang et al. (2006). 176. *Pseudolaguvia ribeiroi* (Hora 1921) **Material consulted:** Sen (2000). 177. *Pseudolaguvia* sp. 1 **Material examined:** RGUMF-0137, 1 ex., 32mm SL; Ranga R.,

LISTS OF SPECIES

Kimin; 4.vi.2005. (Figure 19). 178. *Pseudolaguvia* sp. 2 **Material examined:** RGUMF-0138, 1 ex., 30mm SL; Balijan S., Balijan; 27.ix.2004. (Figure 20). 179. *Pseudolaguvia* sp. 3 **Material examined:** RGUMF-0178, 1 ex., 43mm SL; Epipani R.; 27.ix.2004. (Figure 21). **Family: Clariidae** 180. *Clarias batrachus* (Linnaeus 1758) **Material examined:** RGUMF-0139, 1 ex., 150mm SL; Dikrong R., Doimukh; 3.iii.2005. **Family: Heteropneustidae** 181. *Heteropneustes fossilis* (Bloch 1794) **Material examined:** RGUMF-0140, 12 exs., 100-210mm SL; Dikrong R., Doimukh; 3.iii.2005. **Family: Chacidae** 182. *Chaca chaca* (Hamilton 1822)⁺ **Material examined:** RGUMF-0141, 1 ex., 155mm SL; Dikrong R., Doimukh; 3.iii.2005. **Order: BELONIFORMES Family: Belonidae** 183. *Xenentodon cancila* (Hamilton 1822) **Material examined:** RGUMF-0142, 4 exs., 95-168 mm SL; Ranga R., Kimin; 4.vi.2005. **Order: SALMONIFORMES Family: Salmonidae** 184. *Oncorhynchus mykiss* (Walbaum 1792)⁺ **Material examined:** RGUMF-0166, 5 exs., 58-108mm SL; Pare R., Ramgath; 18.iii.2005. **Order: SYNBANCHIFORMES Family: Mastacembelidae** 185. *Macrognathus aral* (Bloch and Schneider 1801)⁺ **Material examined:** RGUMF-0143, 4 exs., 90-120 mm SL; Ranga R., Kimin; 4.vi.2005. 186. *Macrognathus pancalus* Hamilton 1822 **Material examined:** RGUMF-0144, 7 exs., 70-115mm SL; Ranga R., Kimin; 4.vi.2005. 187. *Mastacembelus armatus* (Lacepede 1800) **Material examined:** RGUMF-0145, 5 exs., 120-375mm SL; Ranga R., Kimin; 4.vi.2005. **Order: SYMBRANCHIFORMES Family: Symbranchidae** 188. *Menopterus cuchia* (Hamilton, 1822) **Material examined:** RGUMF-0188, 4 exs., 300-550mm SL; flood plain of Dikrong R., Doimukh; 25.v.2007. **Order: PERCIFORMES Family: Chandidae** 189. *Chanda nama* Hamilton 1822 **Material examined:** RGUMF-0146, 14 exs., 45-77mm SL; Ranga R., Kimin; 4.vi.2005. 190. *Parambassis baculis* (Hamilton 1822) **Material consulted:** Ghosh and Lipton (1982); Nath and Dey (1997); Sen (2000). 191. *Parambassis ranga* (Hamilton 1822) **Material examined:** RGUMF-0147, 10 exs., 30-73mm SL; Ranga R., Kimin; 4.vi.2005. 192. *Parambassis* sp. 1 **Material examined:** RGUMF-0148, 12 exs., 37-65mm SL; Ranga R., Kimin; 4.vi.2005. (Figure 22). 193. *Parambassis* sp. 2 **Material examined:** RGUMF-0179, 1 ex., 39mm SL; Epipani R.; 10.vii.2006. (Figure 23). **Family: Nandidae** 194. *Badis assamensis* Ahl 1937⁺ **Material examined:** RGUMF-0180, 2 ex., 49-52mm SL; Dibang R.; 10.vii.2006. 195. *Badis badis* (Hamilton 1822) **Material examined:** RGUMF-0149, 5 exs., 23-40mm SL; Mebang R., Boleng; 21.vi.2004. 196. *Badis* sp. 1 **Material examined:** RGUMF-0150, 5 exs., 27-52mm SL; Dikrong R., Doimukh; 3.iii.2005. (Figure 24). 197. *Badis* sp. 2 **Material examined:** RGUMF-0151, 3 exs., 35-52mm SL; Dikrong R., Sagalee; 7.i.2005. (Figure 25). 198. *Badis* sp. 3 **Material examined:** RGUMF-0152, 3 exs., 42-46mm SL; Pare R., Ramgath; 18.iii.2005. (Figure 26). 199. *Nandus nandus* (Hamilton 1822) **Material examined:** RGUMF-0181, 1 ex., 92mm SL; Pare R., Ramgath; 18.iii.2005. **Family: Cichlidae** 200. *Oreochromis mossambica* (Peters 1852)⁺ **Material examined:** RGUMF-0153, 8 exs., 40-105mm SL; Pare R., Ramgath; 18.iii.2005. **Family: Gobiidae** 201. *Glossogobius giuris* (Hamilton 1822) **Material examined:** RGUMF-0154, 10 exs., 103-120mm SL; Ranga R., Kimin; 4.vi.2005. **Family: Anabantidae** 202. *Anabas testudineus* (Bloch 1792) **Material examined:** RGUMF-0155, 8 exs., 80-115mm SL; Dikrong R., Doimukh; 3.iii.2005. **Family: Belontiidae** 203. *Colisa sota* (Hamilton, 1822)⁺ **Material examined:** RGUMF-0156, 9 exs., 22-36mm SL; Ranga R., Kimin; 4.vi.2005. 204. *Colisa fasciata* (Bloch and Schneider 1801) **Material examined:** RGUMF-0157, 11 exs., 52-69mm SL; Pare R., Ramgath; 18.iii.2005. 205. *Colisa labiosus* (Day 1877) **Material examined:** RGUMF-0158, 4 exs., 38-40mm SL; Ranga R., Kimin; 4.vi.2005. **Family: Channidae** 206. *Channa punctata* (Bloch 1793) **Material examined:** RGUMF-0159, 9 exs., 90-117mm SL; Sipu R., Doji ; 17.vii.2005. 207. *Channa striata* (Bloch 1793) **Material examined:** RGUMF-0160, 3 exs., 85-115mm SL; Sipu R., Doji; 17.vii.2005. 208. *Channa orientalis* Bloch and Schneider 1801 **Material examined:** RGUMF-0161, 12 exs., 73-112mm SL; Kela R., Ziro, 17.vii.2005. 209. *Channa marulius* (Hamilton 1822) **Material consulted:** Ghosh and Lipton (1982); Nath and Dey (1997); Sen (2000). 210. *Channa stewartii* (Playfair 1867) **Material consulted:** Sen (2000). 211. *Channa* sp. **Material examined:** RGUMF-0182, 3 exs., 119-130mm SL; Iduli R., Roing, 31.viii.2004. (Figure 27). **Order: TETRAODONTOFORMES Family: Tetraodontidae** 212. *Tetraodon cutcutia* Hamilton 1822 **Material examined:** RGUMF-0162, 3 exs., 52-85mm SL; Dikrong R., Doimukh; 3.iii.2005. **Order: SYNGNATHIFORMES Family: Syngnathidae** 213. *Microphis deocata* (Hamilton 1822) **Material consulted:** Sen (2000). ⁺ New record from the area v.n. valid name